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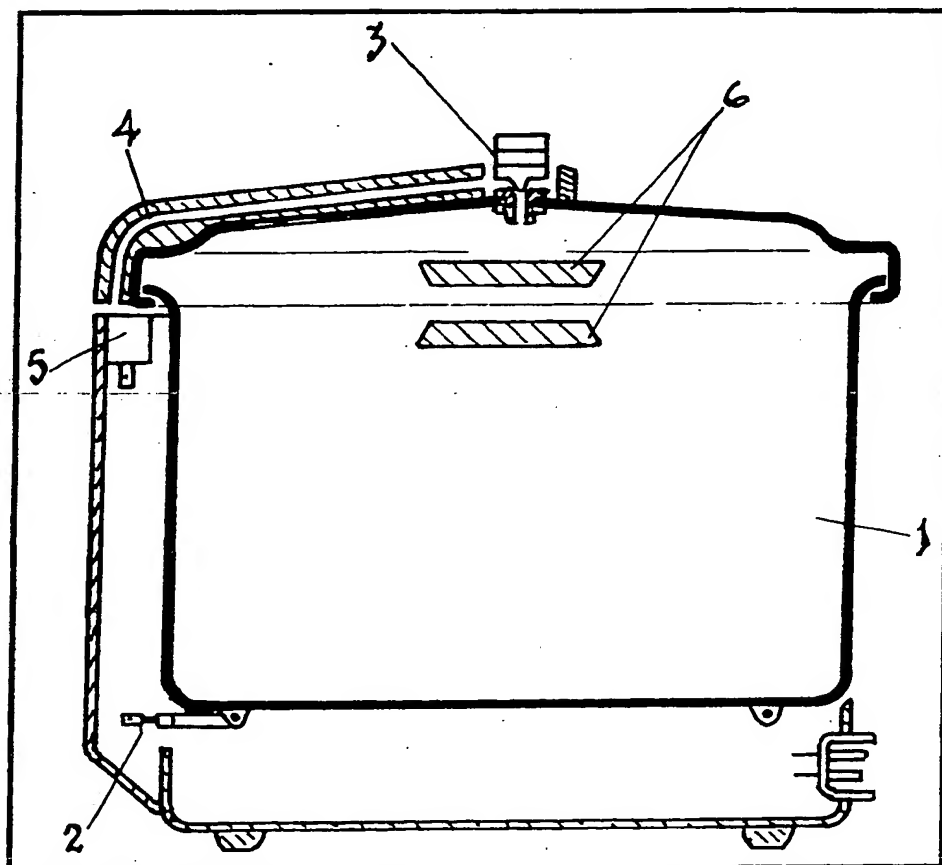
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(54) Pressure cooker

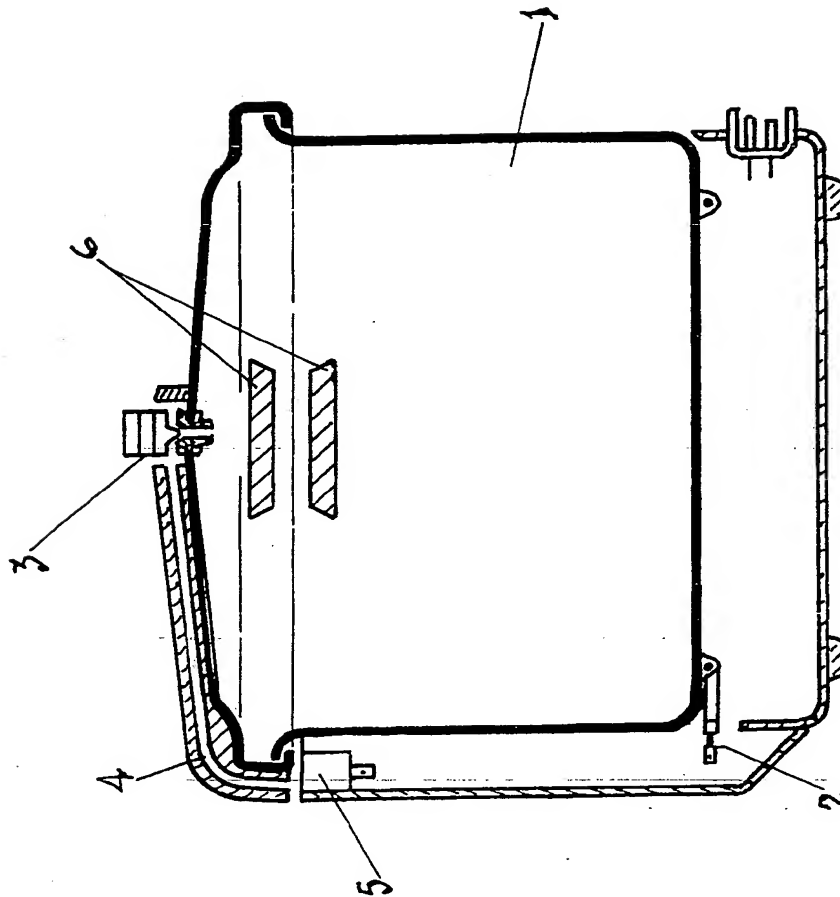
(57) A pressure cooker in accordance with this invention comprises a vessel (1) incorporating an electric heating element (2), a lid (7) provided with a valve (3) for releasing vapour from within the vessel, and a passage extending from said valve to the proximity of a temperature sensitive device (5) secured to said vessel for controlling the electric heating element. Such an arrangement enables the pressure to be maintained with a minimum evaporation of the contents of the vessel.



The drawing originally filed was informal and the print here reproduced is taken from a later filed formal copy.

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SPECIFICATION

Improvements in or relating to pressure cookers

5 This invention relates to the control of heated vessels intended to operate with the contents at or above atmospheric pressure so as to obtain temperatures at or above the normal boiling point of a liquid contained therein.

10 In such vessels, the internal pressure is normally determined by means of an adjustable valve which allows vapour to escape at the desired pressure or temperature when it is then usual to reduce the heat input to a maintaining level to avoid excessive escape of vapour and consequent rapid evaporation of the contents. It is an object of the present invention to achieve this adjustment of heat input to a maintaining level automatically when the desired temperature or pressure is reached by employing a responsive device affected by the vapour escaping from the valve in such a way that the responsive device controls the heat input to keep the rate of escape of vapour within desired limits.

20 According to the present invention a pressure cooker comprises a vessel incorporating an electric heating element, a lid provided with a valve for releasing vapour from within the vessel, and a passage extending from said valve to the proximity of the temperature sensitive device secured to said vessel for controlling the electric heating element. Such an arrangement is an improvement on previously known pressure cookers which incorporate an electrical connection between a temperature sensitive device located adjacent the valve on the lid and the electric heating element in the base of the vessel, which have the disadvantage that the electrical connection hinders removal of the lid.

30 The temperature sensitive device is preferably secured near the rim of the vessel and the passage preferably extends from the valve to the edge of the lid adjacent the temperature sensitive device. By this means vapour escaping from the valve is conducted to the sensor in use of the cooker and an excessive release of vapour through the valve can be arranged to cause the electric supply to the heating element to be cut off.

45 The valve is preferably adjustable so that a variety of pressures may be established within the vessel. The valve may be adjusted either by means of removable weights acting on a needle or ball valve or by means of a variable spring acting on a needle or ball valve.

60 The passage may be conveniently constituted by a tube in a moulding of plastics material secured to the lid of the cooker or by a duct formed between a plastic moulding and the lid of the cooker.

65 The temperature sensitive device conveniently comprises either a bimetal switch or a

thermistor in an electronic circuit incorporating a digital timer and switching means.

The invention will now be further described by way of an example with reference to the accompanying drawing.

70 *Figure 1* which shows a sectional view of a pressure cooker in accordance with the invention.

75 The pressure cooker comprises a vessel 1 and an electrical heating element 2 and a lid 7. A valve 3 comprising a needle valve surmounted with removable weights is used to control the pressure obtainable in the cooker. A plastics material moulding 4 incorporates a passage extending when the lid is in place on the vessel, from the valve 3 to a temperature sensitive bimetallic switch 5. The latter is arranged to switch off the electric supply to the heating element when the temperature of the vapour conducted from the valve exceeds a predetermined value and to restore the electric supply when the vapour temperature exceeds a lower predetermined value. Thus, although it is the valve which determines the pressure, this pressure is maintained with a minimum evaporation of the contents of the vessel.

CLAIMS

95 1. A pressure cooker comprising a vessel incorporating an electric heating element, a lid removably securable to the vessel and provided with a valve for releasing vapour from within the vessel, and a passage extending from said valve to the proximity of a temperature sensitive device secured to said vessel for controlling the electric heating element.

100 2. A pressure cooker according to Claim 1 wherein said temperature sensitive device is secured near the rim of the vessel and said passage extends from the valve to the edge of the lid adjacent the temperature sensitive device.

110 3. A pressure cooker according to any preceding claim wherein said valve is adjustable so that a variety of pressures may be established within the vessel.

115 4. A pressure cooker according to any preceding claim wherein the passage is constituted by a tube in a moulding of plastics material secured to the lid.

120 5. A pressure cooker according to any preceding claim wherein the passage is constituted by a duct formed between a plastic moulding and the lid of the cooker.

6. A pressure cooker according to any preceding claim wherein the temperature sensitive device comprises either a bimetal switch or a thermistor.

125 7. A pressure cooker as hereinbefore described with reference to the accompanying drawing.

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